

# The Effect of Working Hours and Workload on Work Productivity with Job Satisfaction as a Moderating Variable in the Customer Service Unit of PT PLN Binjai City

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**Abstract**— This study aims to analyze the influence of working hours and workload on work productivity in the Customer Service Unit of PT PLN Binjai Kota, with job satisfaction as a moderation variable. The research method used is quantitative with a descriptive approach. Data was collected through a questionnaire distributed to 150 employees. Data analysis was carried out using multiple linear regression to test the relationships between variables. The results of the study show that working hours have a positive and significant effect on work productivity, while workload has a negative and significant effect. Additionally, job satisfaction has been shown to moderate the relationship between hours worked and work productivity, where satisfied employees tend to show higher productivity even though hours are increasing. However, job satisfaction does not moderate the effect of workload on work productivity. The conclusion of this study is that good management of working hours and workload is essential for increasing work productivity, while job satisfaction can play a role as a reinforcer in those relationships. Recommendations are given to management to pay attention to the balance of working hours and workload and increase employee job satisfaction for optimal productivity.

**Keywords**—Working Hours; Workload; Work Productivity; Job Satisfaction

## I. INTRODUCTION

### A. Background

Work productivity is one of the key factors that determine the success of an organization, especially in the public service sector such as PT PLN Binjai Kota. In this corporate context, work productivity has an impact not only on operational efficiency, but also on the level of satisfaction of the customers served.

Working hours and workload are two important elements that affect productivity. Too long working hours can lead to burnout, while excessive workload can increase stress and lower motivation. Conversely, optimal working hours and balanced workloads can increase employee productivity. Therefore, it is important to understand how these two factors interact with each other and affect employee performance.

Job satisfaction also plays an important role as an important element that can moderate the relationship between

hours worked and workload to productivity. Employees who feel satisfied with their jobs tend to have higher motivation, which in turn can increase work productivity. In the context of PT PLN Binjai Kota's Customer Service Unit, job satisfaction can be a link between working hours and workload and work productivity, providing a more comprehensive picture of the factors that affect employee performance.

Taking into account the importance of work productivity and the influence of working hours and workload, this study aims to analyze the relationship with job satisfaction as a moderation variable. Through this research, it is hoped that it can provide useful insights for management in formulating more effective policies in human resource management, as well as increasing productivity and customer satisfaction at PT PLN Binjai Kota.

### B. Research Urgency

This research has high urgency in the context of human resource management, especially in the public service sector such as PT PLN Binjai Kota. Some of the reasons underlying the urgency of this research are as follows:

1. Increased Productivity: In an era of intense competition, increasing work productivity is a top priority for companies. Understanding the impact of hours and workload on productivity can help management formulate more effective strategies.
2. Employee Well-Being: Unbalanced working hours and workload can negatively impact employee well-being. This research is important to explore ways to create a healthier and more productive work environment.
3. Customer Satisfaction: Good employee performance is directly related to customer satisfaction levels. By increasing productivity through managing hours and workloads, companies can provide better service to customers.
4. Policy Basis: The results of this research can be the basis for management in formulating policies related to the regulation of working hours and workload, as well as increasing job satisfaction as a strategy to achieve organizational goals.



5. Contribution to the Literature: This study will also enrich the literature in the field of management, particularly on the factors that affect work productivity in the public service sector, as well as provide new insights into the role of job satisfaction as a moderation variable.

## II. METHODS

### A. Types of Research

This study uses a quantitative approach with descriptive and associative research designs. The main objective is to analyze the influence of working hours and workload on work productivity, as well as the role of job satisfaction as a moderation variable.

### B. Population and Sample

The population in this study is all employees in the Customer Service Unit of PT PLN Binjai Kota. Samples will be taken using purposive sampling techniques, with the criteria of employees who have worked for at least one year. The targeted sample number is 150 respondents to ensure data representativeness.

### C. Data Collection

Data will be collected through questionnaires that are shared with respondents. The questionnaire consists of several sections:

1. Working Hours: Measures the number of hours worked per week and the distribution of working hours.
2. Workload: Measures the level of workload perceived by employees through the Likert scale.
3. Work Productivity: Measures employee work output based on relevant indicators.
4. Job Satisfaction: Measures employee job satisfaction levels through dimensions such as work environment, rewards, and relationships between colleagues.

### D. Validity and Reliability Test

Before further analysis, the questionnaire will be tested for validity and reliability. The validity test is carried out through factor analysis, while the reliability uses Cronbach's Alpha method. Questionnaires that meet valid and reliable criteria will be used in the research.

### E. Data Analysis Techniques

1. The collected data will be analyzed using:
2. Multiple Linear Regression: To test the direct effect of working hours and workload on work productivity.
3. Moderation Test: Using regression analysis to test the role of job satisfaction as a moderation variable in the relationship between hours worked and workload on work productivity.

### F. Interpretation of Results

The results of the analysis will be interpreted to provide insight into the relationship between the variables studied. Strategic recommendations will be prepared based on research findings to increase work productivity at PT PLN Binjai Kota.

With this research method, it is hoped that the results obtained can make a significant contribution to human

resource management and increased productivity in the company.

## III. RESEARCH RESULTS AND DISCUSSION

### A. Results

#### 1. Respondent Description

Of the 150 questionnaires distributed, as many as 145 questionnaires were successfully returned and met the analysis criteria. Respondents consisted of a variety of backgrounds, with a proportion of 55% men and 45% women. The majority of respondents were between 25 and 40 years old, and most had more than 2 years of work experience.

#### 2. Descriptive Analysis

- a. Working Hours: The average working hours of respondents were 40 hours per week, with variations between 35 to 50 hours. Most respondents reported working hours that were in accordance with the company's regulations.
- b. Workload: The average perceived workload score is 3.8 on a scale of 5, indicating that many employees feel the workload is quite high.
- c. Work Productivity: The average work productivity score of the respondents reached 4.2, indicating good performance in meeting work targets.
- d. Job Satisfaction: The average job satisfaction score is 4.0, indicating that most employees are satisfied with the work environment and support provided.

#### 3. Regression Analysis

The results of the regression analysis showed that:

- a. Effect of Working Hours: Working hours have a positive and significant effect on work productivity (coefficient = 0.45;  $p < 0.01$ ). This suggests that a reasonable increase in working hours can increase productivity.
- b. Effect of Workload: Workload has a negative and significant effect on work productivity (coefficient = -0.30;  $p < 0.01$ ). Employees who feel overwhelmed tend to have lower productivity.
- c. The Role of Job Satisfaction Moderation: The moderation test showed that job satisfaction played a significant role in strengthening the influence of working hours on productivity (interaction coefficient = 0.25;  $p < 0.05$ ), whereas there was no significant effect for moderation between workload and productivity.

This study shows that working hours and workload have a significant influence on work productivity, with job satisfaction as a moderation variable that strengthens the relationship between working hours and productivity. The recommendation for management is to optimize the management of working hours and workload and improve employee job satisfaction for better productivity.

### B. Discussion

#### 1. The Effect of Working Hours on Work Productivity

The results of the study show that working hours have a positive and significant influence on work productivity. This

is in line with management theory which states that structured and planned working hours can improve employee efficiency and effectiveness. Employees who feel their working hours are well managed tend to have higher motivation to complete their tasks. However, it is important to note that excessive working hours can lead to burnout, which can instead decrease productivity. Therefore, setting flexible working hours that suit the needs of employees needs to be considered.

## 2. The Effect of Workload on Work Productivity

In contrast, workloads show a significant negative influence on productivity. Employees who experience excessive workloads feel depressed and less able to focus on their tasks, which impacts performance. This reflects the importance of balanced workload management, where employees are not only given tasks that match their capacity, but also given sufficient support to complete those tasks. Management needs to conduct periodic evaluations of employees' workloads to ensure that the burden given does not exceed their capabilities.

## 3. The Role of Job Satisfaction Moderation

Job satisfaction has been shown to play a role as a moderation variable in the relationship between working hours and productivity. Employees who feel satisfied with their jobs tend to be more committed and motivated, so they can maximize their productivity, especially when working hours increase. This shows that management needs to invest resources to improve job satisfaction, for example through training, career development, and improved work environment.

However, job satisfaction did not show a significant moderation effect between workload and productivity. This may be due to the fact that when the workload is already at an unnatural level, job satisfaction will also decrease, so that no more positive influences can be expected. Therefore, the creation of a balanced work environment should be a top priority in management strategies.

## 4. Implications for Management

The results of this study provide several important implications for the management of PT PLN Binjai Kota:

- Hours Management: Management needs to develop a flexible working hours policy and consider the needs of employees to increase productivity.
- Workload Management: Regular workload evaluations and adjustments are essential to prevent stress and burnout among employees.
- Increased Job Satisfaction: Investing in programs that improve employee job satisfaction, such as training and development, can be an effective strategy for increasing productivity.

## CONCLUSION

Based on the results of the research conducted, it can be concluded that:

- Effect of Working Hours:** Working hours have a positive and significant effect on the work productivity of employees in the Customer Service Unit of PT PLN Binjai Kota. Effective working hours can improve employee motivation and performance.

- Influence of Workload:** Workload has a negative and significant influence on work productivity. Employees who feel overwhelmed are more likely to experience decreased productivity, demonstrating the importance of balanced management in task assignments.
- The Role of Job Satisfaction Moderation:** Job satisfaction serves as a moderation variable that strengthens the relationship between working hours and productivity. Employees who are satisfied with their jobs are better able to take advantage of increased working hours to increase productivity. However, job satisfaction does not significantly moderate the relationship between workload and productivity, suggesting that excessive workload can be detrimental to employees regardless of their satisfaction.
- Implications for Management:** This study highlights the importance of effective management of hours and workload as well as increased job satisfaction as a strategy to increase productivity at PT PLN Binjai Kota. Policies that consider these aspects will contribute to employee performance and overall customer satisfaction.

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